



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/719,571	09/25/96	ANDERSON	D A-63899-1

HM22/0228  
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EXAMINER

GRUN, J

ART UNIT	PAPER NUMBER
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1641

DATE MAILED:

02/28/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/719,571

Applicant(s)

ANDERSON

Examiner

James L. Grun, Ph.D.

Group Art Unit

1641



☒ Responsive to communication(s) filed on 1 Nov 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1, 2, 4-8, and 12-15 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 2, 4-8, and 12-15 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1641

To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Technology Center 1600, Group 1640, Art Unit 1641.

The Request for a Continued Prosecution Application under 37 CFR § 1.53(d), filed 01 November 1999, is acknowledged and, as directed therein, the amendment filed concurrently therewith has been entered. Claims 1-2, 4-8, and 12-15 remain in the case.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's indication that the requirement for submission of formal drawings is being held in abeyance pending the indication of allowable subject matter is re-acknowledged.

Claims 1-2, 4-7, and 15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-2, "the RET protein" lacks antecedent basis.

In claims 4-7, "the RET protein" lacks antecedent basis.

In claim 15, "the RET protein" lacks antecedent basis.

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Claim 8 is rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Stemple et al (Cell 71: 973-985, 1992) for reasons of record.

Applicant's arguments filed 01 November 1999 have been fully considered but they are not deemed to be persuasive as there remains no factual evidence of a difference between what is disclosed in the reference and what is instantly claimed. Applicant's arguments drawn to the initially isolated population of the reference were again not found germane or persuasive with regard to the cloned cells of the reference noted in the rejection. The Examiner would note the disclosure of the reference that cloned cells were obtained which produced only nonneuronal cells such as glial cells (e.g.: page 977, col. 2; Table 2 (G + O); Fig. 7A (G + O)).

Claims 1-2, 4-8, and 12-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lo et al (Perspectives Dev. Neurobiol. 2: 191-201, 1994), Stemple et al (Dev. Biol. 159: 12-23, 1993), Stemple et al (Cell 71: 973-985, 1992), and Martucciello et al for reasons of record.

Applicant's arguments filed 01 November 1999 have been fully considered but they are not deemed to be persuasive.

In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Notwithstanding Applicant's arguments to the contrary, the teachings of the other references combined with those of Lo et al

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in the instant rejection under 35 U.S.C. § 103(a) provide the methodological guidance and reagents for cell isolation and culture which Applicant asserts are lacking in the disclosure of Lo et al.

Again, in response to Applicant's reiterated previous arguments that RET expression helps identify the lineage of neural crest stem cells, the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The Examiner would again note that Applicant does not describe and is not claiming a method for identifying the lineage of neural crest stem cells, only a method of neural progenitor cell enrichment.

Again, in response to Applicant's arguments that there are no specific suggestions to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Nomiya*, 184 USPQ 607 (CCPA 1975); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209


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(CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA 1969). Notwithstanding Applicant's arguments to the contrary, in this case, for the reasons of record, ample motivations to isolate RET+ cells are provided with, for reasons of record, an extremely reasonable expectation of success using the conventional methods of the references. Indeed, Lo et al provide the specific suggestion that cells expressing this marker should be isolated for further testing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L. Grun, Ph.D., whose telephone number is (703) 308-3980. The examiner can normally be reached on weekdays from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, James C. Housel, SPE, can be reached on (703) 308-4027. The fax phone numbers for official communications to Group 1640 are (703) 305-3014 or (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

  
James L. Grun, Ph.D.  
February 25, 2000

  
2/26/00

JAMES C. HOUSEL  
SUPERVISORY PATENT EXAMINER

08/719,571



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Please find below a communication from the **EXAMINER** in charge of this application

Commissioner of Patents

In view of the papers filed 01 November 1999, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the addition of "Li-Ching Lo, Arcadia, CA."

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

Any inquiry concerning this communication should be directed to Examiner James Grun, Ph.D., Technology Center 1600, Group 1640, Art Unit 1641, whose telephone number is (703) 308-3980. If unable to reach the examiner, James C. Housel, SPE, can be contacted at (703) 308-4027.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

James L. Grun, Ph.D.  
February 25, 2000

*James C. Housel*  
2/26/00

JAMES C. HOUSEL  
SUPERVISORY PATENT EXAMINER